REMARKS

Claims 2-5 and 16 are pending in this application. By this Amendment, claim 4 is amended, and new claim 16 is added. Support for the amendment to claim 4 and for new claim 16 can be found in the specification as originally filed, for example, at page 11, lines 2-5; page 13, lines 24-28; and claims 1 and 4 as originally filed. No new matter is added by these amendments.

I. 35 U.S.C. §103

The Office Action rejects claims 2-4 under 35 U.S.C. §103(a) over U.S. Patent No. 5,952,079 to Andou et al. in view of U.S. Patent No. 4,776,998 to Davidson et al., U.S. Patent No. 4,622,057 to Chyung et al., and U.S. Patent No. 4,439,929 to Kitagawa et al., and optionally in view of U.S. Patent No. 3,731,036 to Hallier et al. and U.S. Patent No. 5,189,273 to Inukai et al. The Office Action also rejects claim 5 under 35 U.S.C. §103(a) over Andou in view of Davidson, Chyung and Kitagawa, optionally in view of Hallier and Inukai, and further in view of U.S. Patent No. 3,187,574 to Mason et al. or U.S. Patent No. 4,315,150 to Darringer et al. Applicants respectfully traverse the rejections.

Independent claim 4 sets forth, in pertinent part, a "method of fabricating at least a ceramic honeycomb body including a multiplicity of cells, ... comprising drying at least an extrusion-molded argillaceous honeycomb body by exposing ... to a high-humidity ambience of not less than 70 % in humidity; and irradiating ... with microwaves having a frequency of 1,000 to 10,000 MHz; wherein ... during drying, the honeycomb body is placed on a ceramic conveyance tray having a porosity of not less than 10%." Claims 2, 3 and 5 depend from and incorporate all of the limitations of independent claim 4.

The method of claim 4 requires that, during drying, the ceramic honeycomb body is placed on a ceramic conveyance tray that has a porosity of not less than 10%. These requirements, as part of the claimed method, allow a high-humidity environment to be

maintained during drying, by providing humidity in the form of steam to the ceramic honeycomb body and simultaneously preventing water stagnation and elution. *See* Specification, page 4, lines 1-16; page 10, line 36 - page 11, line 13; page 13, lines 28-30; page 15, lines 1-5. By maintaining a high-humidity environment during microwave irradiation heating, similar conditions in the cells and on the outer skin portion of the ceramic honeycomb body are maintained, and similar drying speeds may be obtained. Thus, the claimed method prevents defects in the thinner skin portions of the ceramic honeycomb body and avoids problems, such as dielectric breakdown and undesirable discharge.

The Office Action takes the position that claim 4, and dependent claims 2 and 3 would have been obvious over Andou, in view of Davidson, Chyung, Kitagawa and, optionally, Hallier and Inkai. The Office Action further takes the position that dependent claim 5 would have been obvious in view of the references applied to claim 4 and further in view of Mason and Darringer. Applicants respectfully disagree, at least because none of the cited references provides any teachings or suggestions regarding the use of conveyance trays made of ceramic material and having a porosity of not less than 10% during drying. *See generally* Andou; Davidson; Chyung; Kitagawa; Hallier; Inukai; Mason; Darringer.

Andou teaches ceramic honeycomb bodies, having partition walls with thicknesses of from 0.05 to 0.13 mm, that are produced by extrusion molding clay rods into honeycomb supports and drying the honeycomb supports. *See* Andou, Abstract, col. 6, lines 35-44. The Andou honeycomb support is "uniformly heated to evaporate moisture" and thereafter fired. *See* Andou, col. 6, lines 40-44. However, Andou does not teach or suggest a method including "drying at least an extrusion-molded argillaceous honeycomb body ... wherein ... during drying, the honeycomb body is placed on a ceramic conveyance tray having a porosity of not less than 10%," as set forth in independent claim 4. *See generally* Andou.

Davidson teaches drying extrudable compositions under high-humidity conditions to avoid over-drying. *See* Davidson, col. 3, lines 55-58. In Davidson, the atmosphere is controlled under high-humidity conditions that conform with the high-humidity atmosphere within passages of the tube-shaped extrudate to stably control water content of the extrudate surface and thus to avoid over-drying. *See* Davidson, col. 3, lines 55-58. However, Davidson does not teach or suggest a method including "drying at least an extrusion-molded argillaceous honeycomb body ... wherein ... during drying, the honeycomb body is placed on a ceramic conveyance tray having a porosity of not less than 10%," as set forth in independent claim 4. *See generally* Davidson.

Chyung teaches drying thick walled shapes, such as boards, and extruded honeycomb structures by applying microwave radiation. *See* Chyung, Abstract; col. 9, line 67 - col. 10, line 4. However, Chyung does not teach or suggest a method including "drying at least an extrusion-molded argillaceous honeycomb body ... wherein ... during drying, the honeycomb body is placed on a ceramic conveyance tray having a porosity of not less than 10%," as set forth in independent claim 4. *See generally* Chyung.

Kitagawa discloses an apparatus for drying a ceramic green honeycomb body by dielectric heating, which Inukai is cited as teaching includes microwave heating. *See* Kitagawa, Abstract, col. 1, line 64 - col. 2, line 14; Inukai, col. 1, lines 14-25. The Kitagawa apparatus includes a support board that has a non-metallic plate-like part having one or more holes for supporting at least one metallic tray-like part. *See* Kitagawa, col. 2, lines 43-60. The non-metallic plate-like part is made from plastic, asbestos, gypsum plaster boards, wooden plates or the like. *See* Kitagawa, col. 4, lines 17-21. The metallic tray-like part(s) are perforated and are preferably made of a metal or metal alloy, such as aluminum, copper, aluminum alloys, copper alloys and combinations of such metals and alloys. *See* Kitagawa, col. 3, lines 50-56; col. 4, lines 21-25; Fig. 3. However, neither Kitagawa nor Inukai teach or

suggest a ceramic conveyance tray that has a porosity of not less than 10%. Contrary to the assertions of the Office Action, water stagnation cannot be prevented by the Kitagawa support board because water may stay between adjacent perforations of the tray-like part, and elution of the cell walls before baking cannot be prevented for the same reasons. That is, the perforated metal tray of Kitagawa cannot achieve the benefits that can be obtained with the claimed ceramic conveyance tray. Thus, neither Kitagawa nor Inukai teaches or suggests a method including "drying at least an extrusion-molded argillaceous honeycomb body ... wherein ... during drying, the honeycomb body is placed on a ceramic conveyance tray having a porosity of not less than 10%," as set forth in independent claim 4. *See generally* Kitagawa; Inukai.

Hallier discloses pre-drying ceramic pieces, such as porcelain plates, by microwave heating in an atmosphere including humidity from water removed from the ceramic pieces, but does not disclose or suggest drying honeycomb bodies or other thin-walled structures under high-humidity conditions. *See generally* Hallier, Abstract; col. 2, lines 55-58. In addition, Hallier does not teach or suggest a method including "drying at least an extrusion-molded argillaceous honeycomb body ... wherein ... during drying, the honeycomb body is placed on a ceramic conveyance tray having a porosity of not less than 10%," as set forth in independent claim 4. *See generally* Hallier.

Mason and Darringer teach infrared optical pyrometers and thermometers, respectively. Specifically, Mason teaches infrared optical pyrometers that can be calibrated for high and low temperatures and that can be used measure the temperatures of ovens. *See* Mason, col. 1, lines 9-18. Darringer teaches optical thermometers for determining temperatures of specific areas by measuring infrared radiation from that area. *See* Darringer, Abstract; col. 1, lines 5-11; col. 2, line 53 - col. 3, line 10. However, neither Mason nor Darringer teaches or suggests a method including "drying at least an extrusion-molded

argillaceous honeycomb body ... wherein ... during drying, the honeycomb body is placed on a ceramic conveyance tray having a porosity of not less than 10%," as set forth in independent claim 4. *See generally* Mason; Darringer.

Because none of the cited references teaches or suggests a method including "drying at least an extrusion-molded argillaceous honeycomb body ... wherein ... during drying, the honeycomb body is placed on a ceramic conveyance tray having a porosity of not less than 10%," as set forth in independent claim 4, Andou, Davidson, Chyung, Kitagawa, Hallier, Inukai, Mason and Darringer, individually and in combination, cannot support a rejection of claim 4, or its dependent claim 5.

For at least the above reasons, independent claim 4 and dependent claims 2, 3 and 5 are patentable over the Andou, Davidson, Chyung, Kitagawa, Hallier, Inukai, Mason and Darringer references, individually and in combination. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

II. New Claim

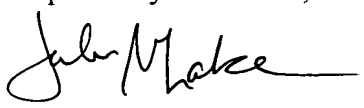
By this Amendment, new claim 16 is added. Claim 16 depends from independent claim 4 and includes all of the limitations thereof. Applicants respectfully submit that, for at least the same reasons set forth above with respect to claim 4, claim 16 is patentable over the cited references.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 2-5 and 16 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:
Petition for Extension of Time

Date: April 24, 2006

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